

Measurements (the external ones as taken by the collector):—

Head and body 90 mm.; tail 53; hind foot (c. u.) 24, (s. u.) 22; ear 14.

Skull: greatest length 25·2; condylo-incisive length 24; zygomatic breadth 15·6; nasals 10·5; interorbital breadth 3·5; breadth of brain-case 13·1; height of crown from base of m^2 7·7; palatilar length 11·8; palatal foramina 6·8; upper molar series 5·3.

Hab. Lago Viedma, Santa Cruz, Patagonia.

Type. Young adult male. B.M. no. 19. 6. 26. 1. Original number 360. Collected 17th December, 1914, by J. R. Pemberton. Presented by the Buenos Ayres Museum.

This species differs so materially in size of skull from *E. chinchilloides* and *E. petersoni* that it should evidently be distinguished from them. Whether they are distinct from each other I very much doubt, as the typical skulls of the two are of almost precisely the same size, and in describing *E. petersoni* Dr. Allen contents himself by referring to the Tierra del Fuego locality of *chinchilloides* without assigning any reason for the separation of the Patagonian animal from it.

Although not old, the type of *E. dabbenei* is not materially younger than that of *E. chinchilloides*.

XIX.—*List of Mammals from the Highlands of Jujuy, North Argentina, collected by Sr. E. Budin.* By OLDFIELD THOMAS.

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THE following is a list of some mammals collected by Sr. Budin at Abrapampa and Casabindo, on the high plateau of North-western Jujuy. The former locality is at an altitude of about 3500 metres, and the latter 4000, while there are, in addition, a number obtained higher up on the Casabindo Cerro or Volcano, as high as 4800 m.

As with the Maimara mammals, of which I gave an account in 1913, these collections clearly indicate the close affinity of the highland Jujuy fauna with that of Bolivia, this being represented by the series sent home by the late Mr. Perry O. Simons. By their help I am enabled more

accurately to work out the distribution of the different forms*.

The most striking novelty is the new *Abrocoma*, a genus not previously known from Argentina.

In fulfilment of my promise of further information on the subject, I may record here that the locality "Otro Cerro," where the collection was obtained of which I gave an account in the May 'Annals' †, proves, after all, to be in the Province of Catamarca. Sr. Budin was thus right as to the Province, but wrong as to the distance and direction from Chumbicha, Otro Cerro being really about 18 kilometres N.N.W. of Chumbicha, and just to the south of Poman.

Correction is therefore needed as to the Province for all the species then described.

1. *Andinomys edax*, Thos.

♂. 524, 527, 531, 533, 544; ♀. 529, 530, 536, 541.

Cerro Casabindo, 4000-4800 m.

"Caught among the rocks on the banks of a stream."—
E. B.

* The following new *Euneomys*, coming from the same general region as the present collection, and, in fact, from the same locality as the type of the new *Galea*, may be conveniently described here:—

Euneomys (Auliscomys) leucurus, sp. n.

Allied to *E. sublimis*, but larger.

Size intermediate between those of *E. pictus* and *sublimis*. Colour not very exactly definable, as the available specimens are either in spirit or have recently been skinned out of it, with resultant discoloration. The general tone, however, appears to be somewhat as in *sublimis*, but more drabby or greyish; hairs of under surface slaty, broadly washed with pale buffy. Hands, feet, and tail white, a very faintly marked narrow darker line perceptible along the top of the latter.

Skull considerably larger than that of *sublimis*, but similarly built; not so broad and stout as in *boliviensis* and *pictus*. Zygomatic plate rather narrow. Palatal foramina long, reaching the level of the middle root of m^1 . Bullæ small, proportionally as in *sublimis*, smaller than in *micropus*, much smaller than in *pictus* and *boliviensis*.

Dimensions of the type (measured on the spirit-specimen, which is probably somewhat contracted):—

Head and body 102 mm.; tail 58; hind foot 21.3; ear 20.

Skull: greatest length 30.5; condylo-incisive length 29; zygomatic breadth 16.3; nasals 11.7; interorbital breadth 4; breadth of brain-case 12.8; palatilar length 15; palatal foramina 7.7; antero-posterior length of bulla 4.7; upper molar series 5.7.

Hab. La Lagunita, Maimara, Jujuy.

Type. Adult female in spirit. B.M. no. 19. 7. 10. 3. Collected by E. Budin. Five specimens examined, two of them quite young.

As shown by its small bullæ, this species is clearly most closely allied to *E. sublimis*, but is readily distinguishable by the greater size of its skull.

† Ann. & Mag. Nat. Hist. (9) iii. p. 489.

2. *Phyllotis ricardulus*, Thos.

♂. 410, 411, 420, 421, 457, 458, 473, 482; ♀. 412, 456, 459, 463, 469, 479, 481, 483. Abrapampa, 3500 m.

♂. 503, 506, 516, 517, 526, 535; ♀. 502, 510, 525, 528, 543. Casabindo, 4000-4500 m.

The Pericotes from Maimara, Jujuy, provisionally referred to *P. wolffsohni* in 1913*, appear also to be referable to *P. ricardulus*, recently described from Otro Cerro, Catamarca.

The true *P. wolffsohni* of Bolivia has decidedly larger molars.

3. *Hesperomys carillus argurus*, subsp. n.

♂. 455, 477, 499, 500; ♀. 496, 497. Abrapampa, 3500 m.

“On the bank of the laguna, in humid pasture-land.”

Essential characters apparently quite as in the true *H. carillus*, but colour throughout much paler. General colour above pale drabby buffy varying to greyish buffy; sides clearer, sometimes with a well-marked buffy line. Under surface greyish white, the bases of the hairs broadly slaty. Head like back. Ears with proectote brown lined with buffy; metentote strongly buffy; a whitish postauricular spot present. Hands and feet white. Tail wholly white, one specimen only having its upper median line faintly darkened. Mammæ apparently 3-2=10.

Skull apparently much as in *carillus*, though the zygomatic plate is slightly broader than in our only example of that animal.

Dimensions of the type:—

Head and body 79 mm.; tail 45; hind foot 16.5; ear 16.5.

Skull: greatest length 22; condylo-incisive length 20.2; zygomatic breadth 12; nasals 8.5; interorbital breadth 3.3; palatilar length 9.2; palatal foramina 5; upper molar series 3.4.

Hab. as above.

Type. Adult female. B.M. no. 19. 8. 1. 21. Original number 496. Collected 17th February, 1919.

This pretty laucha is evidently the dry-area representative of the forest *H. carillus*, from which it differs by its conspicuously lighter colour.

* Ann. & Mag. Nat. Hist. (3) xi. p. 139 (1913).

4. *Eligmodontia hirtipes jucunda*, subsp. n.

♂. 438, 447, 449, 450, 472, 474, 488, 495; ♀. 451, 471, 478, 487. Abrapampa, 3500 m.

"Caught in sandy soil. Inhabits deserted burrows of Tuco-tucos."—*E. B.*

Similar in proportions and other essential characters to the typical *hirtipes* of the Lake Poopo region of Bolivia, but the colour much less bright and buffy. Upper surface drabby buff, much darker than the sandy buff of *hirtipes*—the rump only more distinctly buffy. Hairs of sides with a lessened but still perceptible whitish subterminal ring. Face greyish buffy. Head and sides drabby buff. Under surface pure white or creamy white to the bases of the hairs. An inconspicuous whitish area between eye and ear. Ears with pre- and post-aural marked darker. Hands and feet white. Tail white, with a darker line generally present along its upper surface, but this is absent in the oldest individuals; in *hirtipes* the darker line is scarcely ever perceptible.

Skull as in *hirtipes*.

Dimensions of the type:—

Head and body 85 mm.; tail 80; hind foot 22; ear 18.

Skull: greatest length 25; condylo-incisive length 22.2; zygomatic breadth 13.2; palatilar length 10.2; palatal foramina 5.7; upper molar series 4.

Hab. as above.

Type. Adult male. B.M. no. 19. 8. 1. 29. Original number 488. Collected 5th February, 1919.

This Junju representative of the beautiful little gerbil-mouse of the desert-region round Lake Poopo may be readily distinguished by its greyer and duller coloration.

5. *Bolomys albiventer*, Thos.

♂. 437, 439, 452, 460, 461, 464, 466, 470, 475, 480, 486; ♀. 404, 408, 419, 453, 465, 467, 485, 494. Abrapampa, 3500 m.

♂. 501, 505, 519; ♀. 504, 542. Casabindo, 4000 m.

This is evidently the common vole-mouse (as the members of the *Akodon* group might be termed) of the whole of the high *Octodontomys* area of Bolivia and N. Argentina.

6. *Octodontomys gliroides*, Gerv. & D'Orb.

♂. 513, 514, 521. Casabindo, 4000 m.

7. *Ctenomys luteolus*, Thos.

♂. 415, 416, 423, 426, 427, 432, 433, 442, 493; ♀. 407, 409, 413, 424, 431, 440, 441, 445, 489, 492. Abrapampa, 3500 m.

This tuco-tuco was described in 1899 on a single specimen from the "Cordillera of Jujuy"—therefore very much the same locality as the present.

The coloration, notably the whitish or white nose, proves to be absolutely constant throughout this fine series, while in the skull I find that the anterior cheek-teeth are slightly less in diameter than in *opimus*, and the skull itself does not seem to attain so great a size. I consequently now use the name in a binomial form.

8. *Abrocoma cinerea*, sp. n.

♂. 540. Cerro Casabindo, 4800 m. (=15,600'), 22nd March, 1919. B.M. no. 19. 8. 2. 29. *Type*.

A grey mountain *Abrocoma*, with very short tail and feet.

Size about as in *A. murrayi*, smaller than in *A. bennettii*. Fur very soft and fine; hairs of back just over 20 mm. in length. General colour above light grey, slightly paler than "pale neutral grey"; lighter on sides; belly broadly washed with greyish white. Ears very large, almost naked, brown. Forearms and lower legs buffy whitish; hands and feet silvery white. Soles of the same crenulated structure as in the other species, but the feet themselves disproportionately small, only about half the length of the skull. Tail also very short, about half as long as in the other species, uniformly closely haired, not crested, pale neutral grey above, white below.

Skull showing an extreme development of the differences that separate *A. murrayi* from *bennettii*. *A. murrayi* has a bowed skull, with small incisors and large bullæ; in *A. cinerea* the skull is more bowed, has still smaller—indeed, quite abnormally small—incisors and still larger bullæ. Otherwise there is little to distinguish the two, and the structure of the molars is quite the same in all. Height of middle part of zygomatic greatest (4.5 mm.) in *bennettii*, 3.4 in *murrayi*, least (2.8 mm.) in *cinerea*. Posterior palatine foramina quite small, not the conspicuous opening found in the other species.

Dimensions of the type:—

Head and body 192 mm.; tail 70; hind foot 27.5; ear 29.5.

Skull: greatest median length 48; condylo-incisive length 44·7; zygomatic breadth 23·3; bimeatal breadth 25·5; nasals 19·5 × 6·3; interorbital breadth 8·5; least breadth across brain-case 20·3; palatilar length 21·5; palatal foramina 11; bullæ, diagonal horizontal length 16·8, height to protruding part on top of skull 17; upper cheek-tooth series, crowns 9, alveoli 9·7.

Hab. and *type* as above.

So different does this "Raton Chinchilla," as Sr. Budin calls it, look from anything known, that it was at first supposed to represent a new genus; but close study shows that its peculiarities are only a further specialization of those shown by Wolffsohn's *Abrocoma murrayi*, and that there is no reason to separate it generically. It is, however, in any case a very striking addition to the mammal fauna of Argentina, the other species of the genus being Chilian or Peruvian.

The single specimen was trapped by Sr. Budin—to his great delight—among the rocks on the Volcano of Casabindo, at the very considerable altitude recorded above. Of *H. bennettii* we have examples taken by Mr. Wolffsohn at 200 and 800 metres, and of *H. murrayi* at 600 metres in the lower highlands of Chili. But how far they range up on the main Cordillera I do not know.

9. *Lagidium vulcani*, sp. n.

♂. 507; ♀. 508. Casabindo, 4000 m.

♂. 538, 539, and a separate skull. Cerro Casabindo, 4800 m.

"Shot among the rocks."—*E. B.*

Near *L. tucumanum*, but much more suffused with buffy, and with white incisors.

General colour of adult strongly suffused with buffy, the ends of the hairs more or less buffy yellow. Sides and belly brighter yellowish. White axillary and inguinal patches present. Face more greyish or whitish buffy than the body, the colour there much lighter than in other species. Hands and feet buffy whitish. Tail with the usual blackish under surface.

Skull larger than in *tucumanum*. Nasals fairly narrow, slightly inflated anteriorly, but not broader than the premaxillæ. Frontal processes of premaxillæ more surpassing the nasals. Lacrymal bones larger, projected over the orbit. Projecting area of bullæ on top of skull of the same shape as in *tucumanum*, but larger. Incisive fissure quite narrow, not

open as in *lockwoodi*. Bullæ much inflated, larger than in *tucumanum*, nearly equalling those of *lockwoodi*.

Incisors wholly white. Molars larger and heavier than in *tucumanum*, and their laminæ slightly less oblique, more transverse than in that species.

Dimensions of the type:—

Head and body 370 mm.; tail 301; hind foot 90; ear (dry) 71*.

Skull: greatest length 88; condylo-incisive length 81; zygomatic breadth 44; nasals 33.5×10.5 ; breadth of brain-case 35; projecting upper part of bulla 5.6×8.5 ; palatilar length 41; diameter of bullæ at right angles to their longest axis 11.8; upper tooth-series, crowns 21, alveoli 21.8; greatest breadth across the two series 21.8; breadth of m^1 on lamina 5.2.

Hab. Cerro Casabindo, 4800 m.

Type. Adult male. B.M. no. 19. 8. 2. 32. Original number 538. Collected 20th March, 1919.

The two specimens from the lower altitude (4000 m.) of Casabindo itself are not so buffy as the two from the Cerro at 4800 m., but they are both much younger, and I put down their greater greyness to this cause.

This species is distinguishable from *L. tucumanum* by its white incisors, all our four specimens of that animal having them deep yellow, as is also the case in *L. cuscus* and *lockwoodi*, its larger teeth, larger bullæ, and by the yellowish-buffy colour of the fur.

10. *Galea comes*, sp. n.

♂. 490, 491; ♀. 448. Abrapampa, 3500 m.

External characters quite as in *G. boliviensis*.

Skull stout and strongly built, very much as in *G. anceps*. Nasals running back in the centre to a point projecting considerably further backward than the premaxillary processes—more so than in the lectotype of *G. boliviensis*. Mesopterygoid fossæ parallel-sided, their anterior edge nearly squarely transverse, or notched, their general shape resembling the upper half of the figure called "scutiform" by Ridgway †. The same is the case in *G. anceps*, while in *G. boliviensis* they are narrowed anteriorly to a V-shaped notch, not unlike

* There is an obvious *lapsus calami* in the measurement given on Sr. Budin's label, so I have simply measured the dry ear.

† 'Nomenclature of Colours,' ed. 1, pl. xii. (1912).

the top part of the figure named "cuneate." Bullæ about as in *G. boliviensis*, not so swollen as in *anceps*.

Dimensions of the type:—

Head and body 243 mm.; hind foot 39; ear 22.

Skull: greatest length 54; condylo-incisive length 48.2; zygomatic breadth 33; nasals 20×8.2 ; interorbital breadth 12; palatilar length 24; antero-posterior length of bulla 13; upper tooth-series, crowns 13; breadth across m^3 15.3.

Hab. Jujuy. Type from Maimara, 2230 m. Other specimens from Abrapampa.

Type. Adult female. B.M. no. 12. 12. 12. 53. Original no. 25. Collected 15th March, 1912, by E. Budin and presented by the Hon. N. Charles Rothschild. Eight specimens examined.

This Cuiso agrees with *G. boliviensis* in the size of its bullæ, but differs by the peculiarly broadened shape of the choanæ, which are more like those of the large-bulla species, *G. anceps*.

11. *Dasypus nationi*, Thos.

♂. 435, 436. Abrapampa, 3500 m.
"Quirchincho."

So far as I am aware, no specimen of this distinct species has been recorded since I described it in 1894* on an example sent from Oruro to Prof. Nation of Peru, by whom it was presented to the British Museum.

The type having had quite an imperfect skull, I am glad to be now able to record the skull-measurements of an old male of the species, no. 435:—Condylo-nasal length 73; basal length 60.5; zygomatic breadth 46; nasals 24×8.5 ; interorbital breadth 18.5; bi-meatal breadth 45; palatal length 42; greatest breadth of palate including teeth 16.

These two specimens differ in the number of scale-rows in the shoulder-shield, no. 436, like the type, having only three rows in the centre, while no. 435 has four.

Both specimens are rather more hairy than the type, but the latter looks somewhat worn and may possibly have been in confinement.

12. *Marmosa elegans pallidior*, Thos.

♀. 462. Abrapampa, 3500 m.

♂. 512, 518, 520, 522; ♀. 509, 511, 515, 523, 537.
Casabindo, 4000-4500 m.

* Ann. & Mag. N. H. (6) xiii. p. 70.